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Congenital Cardiology Solutions

ADULT CONGENITAL HEART DISEASE HOSPITALIZATIONS: INSIGHTS INTO RESOURCE BURDEN

ACC Moderated Poster Contributions
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Session Title: Congenital Cardiology Solutions: Adult II
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Background: A description of the clinical and institutional burden of specialized inpatient care for adult congenital heart disease (ACHD) patients has not been reported. We describe the pattern of inpatient care and factors that impact length of stay (LOS, in days).

Methods: We retrospectively identified all patients admitted to our adult hospital from April 2009 to March 2010 managed by the ACHD service. Data pertaining to demographics, cardiac history, hospital admission and resources, and LOS were extracted. As LOS was positively skewed, 4 outliers were excluded and non-parametric analyses were conducted when exploring factors that impact LOS.

Results: One hundred and three admissions in 91 patients (37±10 years; 52% female) were identified. Sixty-four percent had defects of great complexity and 32% of moderate complexity; 22% were unrepaired. Thirty-two percent had a documented history of a psychological problem. Of 103 admissions, 45% were through the emergency department (ED) and 24% were transfers from other hospitals. The most common reasons for admission were arrhythmia (37%) and heart failure (28%). Transplant assessment occurred in 15%, intensive care management for part of the admission in 29%, and intubation in 15%. Death occurred in 7%. The mean number of consultations by other services was 2.0±1.7. Mean LOS was 12±23 (median = 6; range 1-168) for a total of 1,243 days (mean of 3.4 hospitalized patients/day despite having 2 allocated ACHD beds). LOS was longer for patients admitted for heart failure (12.2 for heart failure vs. 5.8 for arrhythmia vs. 6.8 for other reasons, p = 0.001) and for those admitted on weekends (9.4 vs. 7.4, p = 0.02), and lower for patients admitted via the ED vs. those admitted directly to the ward (5.7 vs. 9.6, p = 0.01). LOS did not vary by sex, age, psychological history, cardiac defect complexity, or surgical history.

Conclusion: Resource utilization by ACHD inpatients in our hospital (and we suspect others) is higher than projected. The health care system must be prepared for this increasing need for resources as the ACHD population ages and expands. Effective outpatient strategies to reduce heart failure admissions and LOS should also be explored.